WHAT IS CLAIMED IS:

1. A method for producing a plastic film having improved characteristics, comprising at least one step of treating an extruded plastic film formed with an extruder, downstream of the extruder, by distributing at least one active substance on at least one face of the film, in a region of the film having a temperature higher than the ambient temperature, thereby said active substance interacts with said extruded film by aggregating with and/or penetrating said film, to modify its characteristics.

2. The method according to claim 1, wherein said region of the film lies between a point where the film leaves the extruder and a point where the film has a temperature at which dimensional stability thereof is reached.

3. The method according to claim 1, wherein said region of the film lies between a point where the film has a temperature at which dimensional stability thereof is reached and a point where the film has the ambient temperature.

4. The method according to claim 3, wherein a first one of said active substances is suitable to facilitate adhesion of inks or other chemical products on said film.

5. The method according to claim 4, wherein said active substances are selected from the group consisting of :

-- silanes,

-- titanium acetyl acetonate;

-- polyethylene imine;

-- ionomeric dispersions;

-- shellac;

-- mono- and dicarboxylic acids (acrylic, stearic acid)

-- copolyester dispersions;

-- dispersions of ethylene-acrylic acid (EAA) or methacrylic acid copolymer;

-- UV cross-linking acrylic resins;

-- acrylic (styrene-acrylic) dispersions;

-- acrylic resins;

-- acrylamide;

-- styrene-butadiene dispersions;

-- polar monomers.

6. The method according to claim 1, wherein said active substance provides said film with a "barrier effect" characteristic against the absorption of aromas, water vapor or UV rays.

7. The method according to claim 6, wherein said active substances are selected from the group consisting of:

-- dispersions of EVOH or PVOH;

-- polyvinyl acetate (PVAC) dispersions;

-- dispersions of ethylene-acrylic acid (EAA) or methacrylic acid copolymer;

-- UV cross-linking acrylic resins;

-- acrylic (styrene acrylic) disperse systems;

-- styrene-butadiene dispersions.

8. The method according to claim 1, wherein said active substance gives said film characteristics of high flow and surface slipperiness.

9. The method according to claim 8, wherein said active substance is an amide.

10. The method according to claim 1, wherein said active substance makes said film a crosslinking promoter.

11. The method according to claim 10, wherein said active substance is zinc stearate and/or caprolactam.

12. The method according to claim 1, wherein said active substance renders said film usable for "smart" packagings.

13. The method according to claim 12, wherein said active substance is an oxidizing salt.

14. The method according to claim 1, wherein identical or different

active substances are nebulized on both faces of the film.

15. The method according to claim 1, wherein said active substance is constituted by microcapsules or micropearls which contain substances which are suitable to combine and/or interact with the film and whose shell withstands the temperatures of the region of the film in which they are introduced and can subsequently be activated in order to release the contents due to the application of energy obtained for example with ultraviolet rays, ultrasound or electromagnetic radiation.

16. The method according to claim 1, wherein said substance deposited and/or introduced in the film is a microfiber of glass, carbon and/or equivalent materials, alone or in combination, which are meant to vary the mechanical and/or surface strength characteristics of said film.

17. The apparatus for performing the method according to claim 1, comprising a bubble extruder having an extrusion head, a diffuser which protrudes from the extrusion head coaxially to the bubble formed and inside it, said diffuser comprising a first duct and a second duct, said second duct having, on a portion which lies proximate to said extrusion head, nozzles for nebulizing said "active substance", said first duct having, at a portion which is spaced from said extrusion head, an intake for aspirating air and excess active substance.

18. The apparatus according to claim 17, wherein said first duct has a circular cross-section.

19. The apparatus according to claim 18, wherein said second duct is arranged coaxially outside said first duct, is vertically shorter than said first duct, and ends with a frustum-shaped end which has a plurality of diffusion nozzles at a portion that lies proximate to walls of the bubble that are in a melted state.

20. The apparatus according to claim 17, wherein said second duct comprises, at walls of the bubble that are in melted state, a hemispherical body which is associated with said first duct and has a plurality of diffusion

nozzles.

21. The apparatus according to claim 17, wherein said second duct comprises, at walls of the bubble that are in melted state, a plurality of disk-like bodies which are associated externally with respect to said first duct, each body being perimetrically provided with a plurality of diffusion nozzles.

22. The apparatus according to claim 21, wherein said nozzles are arranged inside and outside the bubble and can move so as to follow a movement of the film at a film speed, the movement of the nozzles being at a speed which is the same as the film speed or is a different speed.

23. The apparatus for performing a method according to claim 1, comprising a linear extruder (CAST), and dispensers of active substances which are constituted by spraying rings and/or bars which are laterally adjacent to at least one face of the film.

24. The apparatus according to claim 23, wherein it has means for heating the film that leaves the extruder, so as to extend said region, having a temperature higher than the ambient temperature.